

**Women's Health Centers:
Are the National Centers of Excellence in Women's Health a New Model?**

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Women's Health Centers: Are the National Centers of Excellence in Women's Health a New Model?

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Abstract This paper describes the characteristics of the clinical centers of the first 12 National Centers of Excellence (CoE) in Women's Health, designated by the U.S. Department of Health and Human Services Office on Women's Health between 1996 and 1997. These centers are compared with 56 hospital-sponsored primary care women's health centers identified in the 1994 National Survey of Women's Health Centers, the only source of nationally representative data on primary care women's health centers. While analysis demonstrates that some organizational and clinical attributes of primary care women's health centers were in evidence before the CoE program was initiated, the CoE centers demonstrate further integration of clinical services with research and medical training in women's health, and the delivery of services to a more diverse population of women.

In 1996, the U.S. Department of Health and Human Services Office on Women's Health established the National Centers of Excellence in Women's Health program "to establish and evaluate a new model health care system that unites women's health research, medical training, clinical care, public health education, community outreach, and the promotion of women in health professions around a common mission—to improve the health status of diverse women across the life span."¹ One of the core functions of the National Centers of Excellence in Women's Health (CoEs), all of which are based in academic health centers, is the development of models of comprehensive, integrated clinical services for women. The clinical services component of the CoEs is intended to address the "fragmentation" of women's health services in the United States that has resulted largely from the traditional separation of reproductive services from other components of care.² The CoE program does not, however, dictate a specific organizational form or service mix for the clinical centers. This study considers whether the CoE

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program is contributing to the development of a new model for women's health centers by comparing the first 12 CoEs with a national sample of other hospital-sponsored primary care women's health centers.

BACKGROUND

Hospital-sponsored women's health centers existed prior to the CoE program. Since 1990, the American Hospital Association's (AHA) annual surveys have tracked the number of hospitals having a women's health center of some type, as distinct from a traditional obstetrics department. Between 1990 and 1994, the proportion of hospitals reporting having a center increased from 19% to 32%. In 1990, the AHA described the typical types of hospital-sponsored women's health centers as centers without walls, separate ambulatory care facilities, or in-hospital pavilions.³ Data on the services provided were not collected, however.

The 1994 National Survey of Women's Health Centers was conducted to estimate the prevalence and to describe the characteristics of U.S. women's health centers. This study estimated that in 1993, there were 3,600 operational women's health centers nationwide, serving a total of 14.5 million women. Twelve percent of these centers were classified as primary care centers and provided a significantly broader range of clinical services than the other types of centers; the remaining centers focused on reproductive health (71% of all centers) or other specialized services.⁴ The primary care centers were of three general types: 1) nonhospital not-for-profit centers, including feminist women's health centers and other community-based centers; 2) nonhospital for-profit centers, including centers founded by physician groups, advanced practice nurses, or other entrepreneurs; and 3) hospital-sponsored centers in academic health centers, community hospitals, and VA medical centers.⁵ Hospital-sponsored centers were the most common (52% of all primary care women's health centers) and were a relatively recent phenomenon: 84% of the hospital-sponsored primary care centers had been founded after 1985, compared with only 18% of the nonhospital primary care centers.

The motivations of hospital administrators in establishing primary care women's health centers were diverse. In the 1994 survey, 59% of the hospital-sponsored centers were described as being founded to "offer a women-centered approach to health care;" 14% to "provide needed services at a reasonable price;" 9% to "fill a market niche"; and 9% to "attract patients to the sponsoring hospital." Over half (52%) of the hospital-sponsored centers reported that a marketing analysis had been conducted prior to opening the center. A common perception is that hospitals sponsor women's primary care centers not because primary care is in itself remunerative, but because the centers attract women—and through women, their family members—to other reimbursable hospital services.⁶ This is not to say that all centers were merely marketing strategies, however. Many hospital-sponsored centers in the 1994 survey had been founded by nurses or women physicians who were committed to developing new clinical models for providing women's primary care and for improving the training of clinicians in women's health. In any case, at the time of the establishment of the CoE program, a growth trend in hospital-sponsored primary care women's health centers had been observed.

METHODS

This report uses survey data to compare the first 12 CoEs (designated in 1996 and 1997) with a national sample of hospital-owned and operated primary care

The first 12 HHS Office of Women's Health CoEs were established in 1996–97

women's health centers ($n = 56$). The national sample consists of all hospital-sponsored primary care women's health centers responding to the 1994 National Survey of Women's Health Centers. The 1994 survey targeted all organizations providing health care services designed for and marketed to women and used a complex sampling frame to obtain a nationally representative sample of both hospital-affiliated and nonhospital women's health centers; the AHA list of hospitals reporting a women's health center was used, in addition to other national listings.⁴ Responding organizations self-classified themselves as primary care, reproductive health, birth or childbearing, breast care, or other types of centers. A 26-page self-administered questionnaire was mailed to the center administrator, with a cover letter explaining that sections of the survey could be completed by appropriate organizational personnel. A 56% response rate was attained among eligible centers.

The CoE survey was conducted in 1998–99 by the Office on Women's Health, using a modified version of the 1994 questionnaire. The survey was mailed to the clinical director of the first 12 CoEs, and all responded. At the time of this survey, each CoE had been in operation for at least 1 year, although the clinical centers were in various stages of development. These centers are: Boston University Medical Center; University of California at Los Angeles; University of California at San Francisco; Indiana University School of Medicine; Magee Women's Hospital, University of Pittsburgh Medical Center; University of Maryland; MCP Hahnemann University; University of Michigan; Ohio State University; University of Pennsylvania; Wake Forest University; and Yale University. (CoEs designated after 1997 were not included in the survey because they had not been in operation long enough.)

There is no overlap in the two survey samples. Because all of the first 12 CoEs were founded in 1994 or later, none was an eligible primary care women's health center at the time of the national survey. Although 4 years elapsed between the two surveys, a concurrent national survey is not available to compare the CoEs with primary care women's health centers founded or in operation in the same time period. This report therefore compares the 12 CoE clinical centers with the only available national sample of hospital-sponsored primary care women's health centers.

The two groups of primary care women's health centers are described with respect to key variables measured in both surveys: organizational and staff characteristics, services provided, women served, implemented core values, and quality assessment and improvement activities. Tests of statistical significance between the two groups of centers use chi-square tests and the Mann-Whitney–Wilcoxon test for comparing two sample means. Because of the small sample size, p -values less than 0.10 are discussed. The sample size in these comparisons would provide approximately 80% power to detect a difference greater than or equal to 35% between groups at $p = 0.10$.

*Two thirds of CoEs
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and one half . . . function
as networks*

FINDINGS

Table 1 presents data on several organizational and staffing variables. The CoEs—all of which are located in academic health centers—are more likely than the centers from the national sample to operate multiple sites. Two-thirds of CoEs operate multiple sites, and one-half report that they function as networks or “centers without walls” linked to a central “one-stop shopping” facility. Administratively, all CoEs have a medical director, compared with 84% of centers in the national sample, and most of the medical directors are women. All CoEs employ at least two types of primary care physicians (typically, internists and obstetrician–gynecologists), compared with 39% of the national sample. The two groups of centers appear equally multidisci-

Table 1. ORGANIZATIONAL AND STAFF CHARACTERISTICS OF CENTERS

	National Sample (n = 56)	COEs (n = 12)	p-value
Type of sponsoring hospital			
Private not-for-profit	59%	50%	NS
Public	39%	50%	NS
For-profit	2%	0%	NS
Physical facilities			
Dedicated space in hospital	29%	42%	NS
Separate facility	64%	58%	NS
No dedicated space	7%	0%	NS
Center operates 2 or more sites	32%	67%	.046
Administrative structure			
Administrator only	9%	0%	NS
Medical director only	16%	33%	NS
Both	68%	67%	NS
Neither	7%	0%	NS
Number of women served (mean)*	3,889	4,921	NS
Percent female physicians (mean)	61%	80%	NS
2+ types of primary care MDs on staff	39%	100%	<.001
Number of types of nonphysician providers on staff (mean) [†]	3.7	3.9	NS
Any mental health provider on staff [‡]	50%	64%	NS
Clinical training provided	66%	100%	.055

*For national sample, figure refers to fiscal year 1993; for CoEs, figure refers to calendar year 1997.

[†]Out of 11 professional categories measured.

[‡]Any psychiatrist, psychologist, or social worker on staff.

plinary with respect to the number of different types of nonphysician providers on staff (e.g., advanced practice nurses, physician assistants, health educators, nutritionists) and the presence of a mental health provider on staff (i.e., psychiatrist, psychologist, or social worker). Finally, while only 66% of the national sample provided any clinical training, all CoEs do so. Physician education is a requirement of the CoE program, and some CoEs also provide training for other clinical personnel.

The data in Table 2 pertain to provision of selected clinical, educational and informational, and enabling services. The two groups of centers do not differ on the average number of total services provided, the average number of mental health services, or the provision of alternative/complementary services. However, only two CoEs reported providing at least one alternative service, compared with 45% of centers in the national sample.

Availability of on-site laboratory, radiology, pharmacy, child care, physician referral services, support groups, and childbirth education classes does not differ between the two groups of centers. Community agency referrals, however, are more likely to be provided by centers in the national sample (88%) than the CoEs (58%). In addition, two-thirds of the CoEs provide women's health resource centers, libraries, or kiosks, but the question about libraries or kiosks was not asked in the national survey.

Table 3 presents the characteristics of the patient population served. The patient populations of CoEs include proportionally more nonwhite patients and Medicare recipients than the national sample. On average, 51% of women served in CoEs are nonwhite, compared with 30% in the national sample, and 18% of CoE patients are Medicare recipients, compared with 11% in the national sample. Data on patient age are not included in this table because half of the CoEs either did not report patient age or reported it for noncomparable

Table 2. SERVICES PROVIDED (CLINICAL, EDUCATIONAL, AND ENABLING)

	National Sample (n = 56)	CoEs (n = 12)	p-Value
Number of clinical services (mean)*	43.0	47.0	NS
Number of mental health services (mean) [†]	3.5	3.2	NS
Provides any alternative/complementary services [‡]	45%	17%	NS
On-site laboratory	82%	92%	NS
On-site radiology	73%	75%	NS
On-site pharmacy	57%	50%	NS
Open evening or weekend hours	42%	42%	NS
On-site child care	11%	25%	NS
Physician referral service	79%	100%	NS
Community agency referral service	88%	58%	.030
Free screenings/health information in community	69%	58%	NS
Support groups	62%	50%	NS
Childbirth education classes	36%	58%	NS

*Out of a total of 87 reproductive health, primary care, mental health, and alternative/complementary services.

[†]Out of a total of 7 mental health services: screening for anxiety/depression; screening for chronic mental disorders; screening and treatment for violent injuries; alcohol abuse services; drug abuse services; smoking cessation counseling; and stress management.

[‡]Alternative/complementary services include: massage therapy, physical therapy, occupational therapy, chiropractic services, podiatry, homeopathic medicine, herbal medicine, naturopathy, and acupuncture.

age categories; however, based on information reported in the marketing section of the questionnaire, it appears that CoEs are somewhat more likely than centers in the national sample to target post-reproductive age women and that very few centers target adolescents.

Table 4 shows the percentage of centers in each group reporting the implementation of specific values within their centers. There are only two significant differences between the two groups of centers. CoEs are substantially more likely than centers in the national sample (75% vs. 21%) to report having implemented a commitment to women's health research. Because research is a required component of the CoE program, those centers that do not report implementation are presumably in the process of developing a research program that involves the clinical center. CoEs also are more likely to report implementing a commitment to women's reproductive rights, which may

CoEs are more likely to target post-reproductive age women . . . few centers target adolescents

Table 3. PATIENT POPULATION SERVED

	National Sample (n = 56)	CoEs (n = 12)	p-value
Major geographic population			
Urban	41%	67%	NS
Suburban	34%	25%	NS
Rural	23%	0%	NS
Combination	2%	8%	NS
Percent nonwhite patients (mean)	30%	51%	.032
Type of health insurance (mean % of patients)			
Medicaid	22%	13%	NS
Medicare	11%	18%	.029
Private	32%	48%	NS
Other	26%	8%	NS
None	8%	5%	NS

CoEs are less likely to be involved in quality measurement and improvement activities

Table 4. IMPLEMENTED CORE VALUES*

	National Sample (n = 56)	CoEs (n = 12)	p-Value
Commitment to			
Primary and preventive services	93%	83%	NS
Holistic approach to care	68%	67%	NS
Life span approach to care	86%	92%	NS
"One-stop shopping"	66%	67%	NS
Multidisciplinary teams	73%	92%	NS
Women providers	54%	42%	NS
Shared decision making	89%	92%	NS
Empowering women	89%	92%	NS
Sensitive/caring attitude	98%	92%	NS
Women's health research	21%	75%	<.001
Women's reproductive rights	46%	83%	.026
Feminist ideology	16%	33%	NS
Serving diverse female population	57%	67%	NS
Providing low-cost services	61%	50%	NS
Attracting women to hospital	50%	75%	NS
Enhanced profitability	27%	17%	NS

*Percent of centers reporting that the item is a core value of the center that has been implemented (put into practice) in some way.

reflect the CoEs' explicit strategy to combine the reproductive and nonreproductive components of women's primary care and to improve the comprehensiveness and continuity of services.

Quality assessment and improvement activities undertaken at the centers also were measured. In general, the CoE clinical centers are less likely to be directly involved in quality measurement and improvement activities than the centers in the national sample. Out of a total of 16 quality assessment and improvement activities measured, CoEs conducted an average of 7.1, compared with 9.4 in the national sample (a statistically significant difference). Notably, CoEs are significantly less likely than the national sample to use patient satisfaction surveys (70% versus 90%, respectively) and to monitor patient outcomes (30% versus 66%, respectively). On the other hand, CoEs are significantly more likely than centers in the national sample to have activities to educate providers on the results of women's health research (80% versus 30%, respectively). These activities included, for example, women's health grand rounds, seminars, and Continuing Medical Education (CME) programs. These results are consistent with CoEs' greater likelihood of providing clinical training (see Table 1) and conducting women's health research (see Table 4), both of which are core components of the CoE program.

DISCUSSION

This description of the characteristics of hospital-sponsored primary care women's health centers reveals that the clinical centers of the first 12 CoEs have many similarities and some differences in comparisons with a national sample of centers in operation prior to the inception of the CoE program. The most noteworthy differences appear to be a function of the overall mission of the CoE program: the program emphasizes an integrated clinical program to serve diverse women across the life span, as well as research, education and training,

and community outreach. Compared with the national sample, CoEs reported greater integration of training and women's health research with their clinical functions and service to a more diverse female population.

Specifically, the CoEs, compared with the national sample, were more likely to operate multiple networked sites, to include at least two medical specialties, to provide clinical training, and to participate in and conduct professional education in women's health research. The CoEs also serve more nonwhite and Medicare patients. This suggests a trend in women's health centers toward greater inclusion and attention to the health concerns of women of post-reproductive age.

The differences between the two groups of women's health centers could be explained by at least two phenomena. First, the differences could reflect the impact of the CoE program on the activities of the participating academic health centers. In other words, the CoE program could be the catalyst for institutional transformations in women's health at these academic health centers. Second, the differences could reflect the selection of centers with the desired characteristics into the CoE program. It is quite plausible that academic health centers with the greatest commitment to women's health—or the greatest organizational capacity to integrate the clinical, research, and training functions in women's health—were more likely to successfully compete for CoE designation. The extent to which other women's health centers founded after 1994 also demonstrate these characteristics cannot be answered with these data because a concurrent comparison group of non-CoE women's health centers is not available.

There also is some evidence in this study that the CoEs may not be as progressive as the earlier hospital-sponsored women's health centers in some areas. For example, although community outreach is a core component of the CoE program, the CoE clinical centers are less likely than the national sample to provide community agency referrals. While this may suggest that CoE clinical centers are less focused than earlier centers on women's social (as opposed to medical) needs, it is possible that this finding reflects CoEs' greater likelihood of partnering with community agencies for specific activities or programs, rather than simply referring patients to them. This partnering, furthermore, might be occurring through mechanisms that are not based in the clinical centers of the CoEs.

Similarly, the finding that CoE clinical centers are less likely than the national sample to conduct specific internal quality assessment activities could reflect CoE leadership's beliefs that quality measurement and improvement are less important. Alternatively, quality assessment functions of the CoEs may be more integrated with those of their sponsoring institutions than was the case with earlier women's health centers, which often had to demonstrate their added value to their sponsoring hospitals. Key approaches to proving added value are patient satisfaction surveys and follow-up of patients to demonstrate services received within the hospital. In the CoEs, however, patients may be surveyed as part of the institution's ongoing patient satisfaction or quality assurance systems, rather than in specific projects to evaluate the performance of the women's health center.

Are the National Centers of Excellence in Women's Health a new model for women's health centers? Overall, the findings demonstrate that the training and research functions emphasized by the CoE program are more prominent features in CoE clinical centers than in earlier hospital-sponsored primary care women's health centers. The CoEs also serve a more diverse female population. We conclude that the CoE program has encouraged—or is giving visibility to—academic health centers that are furthering the institutional integration of women's clinical care, women's health research, and medical education in women's health. Furthermore, because of their location in academic health

centers, the CoEs may provide for a new generation of clinicians, administrators, and researchers committed to women's health issues.

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